Wupatki National Monument, Accuracy Assessment Metadata

Identification_Information:
 Citation:
  Citation_Information:
   Originator: Kathryn Thomas, Becci Dale Anderson, Monica Hansen (comp.)
   Publication_Date: 2004
   Title: Accuracy Assessment Points: Wupatki National Monument
   Geospatial_Data_Presentation_Form: vector digital data
   Online_Linkage: http://biology.usgs.gov/npsveg/wupa/index.html#accuracy_assessment_info
   Larger_Work_Citation:
    Citation_Information:
     Originator: M. Hansen, J. Coles, K.A. Thomas, D. Cogan, M. Reid, J. Von Loh, K. Schultz
     Publication_Date: 2004.
     Title: USGS-NPS National Vegetation Mapping Program: Wupatki National Monument, Arizona, Vegetation
       Classification and Distribution, Final Project Report
     Geospatial_Data_Presentation_Form: report
 Description:
  Abstract: This spatial dataset in ESRI Coverage format maps accuracy assessment point locations for the vegetation map at
    Wupatki National Monument and in the surrounding environs as part of the National Vegetation Mapping Program.
  Purpose: This data set was developed as part of the accuracy assessment sampling design for the vegetation map at
    Wupatki National Monument and the surrounding environs. Points were developed to lead the field sampling and to
    determine if mapped polygons were correctly assigned in the field.
 Time_Period_of_Content:
  Time_Period_Information:
   Range_of_Dates/Times:
    Beginning_Date: 200108
    Ending_Date: 200211
  Currentness_Reference: ground condition
 Status:
  Progress: Complete
  Maintenance_and_Update_Frequency: None planned
 Spatial_Domain:
  Description_of_Geographic_Extent: Wupatki National Monument and the environs.
  Bounding_Coordinates:
   West_Bounding_Coordinate: -111.555615
   East_Bounding_Coordinate: -111.254084
   North_Bounding_Coordinate: 35.658770
   South_Bounding_Coordinate: 35.480491
 Keywords:
  Theme:
   Theme_Keyword_Thesaurus: none
   Theme_Keyword: Accuracy assessment points
  Place:
   Place_Keyword_Thesaurus: none
   Place_Keyword: North America
   Place_Keyword: United States
   Place_Keyword: Southwestern United States
   Place_Keyword: Arizona
   Place_Keyword: Coconino County
   Place_Keyword: Wupatki National Monument
 Access_Constraints: Data are available after research results have been published.
 Use_Constraints: This data was compiled for government use and represent the results of data collection/processing for a

specific USGS/BRD activity/project. The USGS/BRD makes no representation as to the suitability or accuracy of this data for any other purpose and disclaims any liability for errors that the data may contain. As such, it is only valid for its intended use, content, time, and accuracy specifications. While there are no explicit constraints on the use of this data, please exercise appropriate and professional judgment in the use and interpretation of this data. Acknowledgement of the originating agencies would be appreciated in products derived from this data.

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  Contact_Information:
    Contact_Person_Primary:
      Contact_Person: Kathryn A. Thomas
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      Address_Type: mailing and physical address
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      Country: USA
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    Contact_Facsimile_Telephone: 928-556-7500
    Contact_Electronic_Mail_Address: Kathryn_A_Thomas@usgs.gov
    Hours_of_Service: 8:00am to 5:00pm (Arizona time), Monday through Friday
    Contact_Instructions: E-mail
  Browse_Graphic:
    Browse_Graphic_File_Name: http://biology.usgs.gov/npsveg/wupa/images/wupaaa.jpg
    Browse_Graphic_File_Description: 675 kbyte file showing vegetation associations and location of accuracy assessment points
    Browse_Graphic_File_Type: JPG
  Native_Data_Set_Environment: Microsoft Windows 2000 Version 5.0 (Build 2195) Service Pack 4; ESRI ArcCatalog 8.2.0.700
  Cross_Reference:
    Citation_Information:
      Originator: Kathryn Thomas, U.S. Geological Survey, Southwest Biological Science Center, Colorado Plateau Research Station, Monica Hansen, U.S. Geological Survey, Southwest Biological Science Center, Colorado Plateau Research Station, Janet Coles, Bureau of Reclamation, Remote Sensing and Geographic Information Group, Dan Cogan, Bureau of Reclamation, Remote Sensing and Geographic Information Group
      Publication_Date: 2004
      Title: USGS-NPS Vegetation Mapping Program: Wupatki National Monument, Arizona, Vegetation Classification and Distribution. Technical Report FY 2004
      Geospatial_Data_Presentation_Form: report
  Taxonomy:
    Keywords/Taxon:
      Taxonomic_Keyword_Thesaurus: None
      Taxonomic_Keywords: plant communities
    Taxonomic_Classification:
      Taxon_Rank_Name: Kingdom
      Taxon_Rank_Value: Plantae

Data_Quality_Information:
  Attribute_Accuracy:
    Attribute_Accuracy_Report: Dataset was quality checked in a spatial environment and through reviewing data entry.
  Logical_Consistency_Report: Dataset was quality checked by visually inspecting the dataset in a geographic information system (GIS).
  Completeness_Report: Data collection is complete with no exclusions
  Positional_Accuracy:

Horizontal_Positional_Accuracy:
  Horizontal_Positional_Accuracy_Report: Visual inspection was preformed on the dataset to ensure accuracy of all
    sampling locations
Lineage:
  Process_Step:
    Process_Description: Prior to the sample selection design, topology and data structure of the coverage were checked by
      running a check for node errors and label errors in the GIS dataset. The GIS dataset was also dissolved, removing
      polygon boundaries when adjoining polygons have the same value using GIS. Reference point locations were then
      selected for each plant association/map class based on the total cover of each class in the mapping area, where plant
      associations with more cover had more reference points assigned, and vice versa. The number of polygons to be
      sampled was determined by the number of polygons in each vegetation class and the total area of each vegetation class
      of the spatial vegetation dataset. A table was built listing all vegetation types, the number of polygons and area in
      hectares for each vegetation type, and the number of polygons to be sampled. Randomization was ensured through
      creating a database table containing random numbers that were randomly assigned to the polygons. Randomly assigned
      polygons were sorted in ascending numeric order by the vegetation code and then by random numbers to list all
      vegetation types together. Only rows of predetermined sample number for each map class were retained. In addition to
      the number of polygons that must be sampled of each type, there were from 5 to 10 extra polygons included in the
      random sample of polygons in the case that the original polygons could not be reached. Of the 500 reference points
      initially chosen, 355 points were sampled in the field in the first round of sampling and 131 in the second round of
      sampling. Some accuracy assessment points were discarded from the initial round of sampling due to multiple accuracy
      assessment points occurring within a single polygon in the final vegetation map. In this case, the accuracy assessment
      point assessed in the initial round of sampling that contained the largest area of the polygon was selected as the point
      used for the final round of accuracy assessment. The first phase of sampling used reference points chosen to sample
      polygons greater than the minimum mapping unit (MMU) of 0.5 hectares; however, if not enough samples of the map
      class were available in polygons greater than the MMU, polygons less than the MMU were then sampled. In polygons
      greater than the MMU, reference point coordinates were assigned randomly in the polygon with a 5-meter buffer to the
      keep sample points away from stand boundaries. In polygons that were less than the MMU, the centroid of the polygon
      was used for the sampling coordinates to minimize edge effects from adjacent polygons. In the second round of
      sampling all randomized polygons were selected for accuracy assessment. However, sampling points were allocated
      differently depending on two types of polygons: polygons that were equal to or greater than 0.5 hectares in area (the
      MMU) and polygons that were less than 0.5 hectares in area (< the MMU). Polygons that were equal to or greater than
      0.5 hectares contained a 5-meter buffer from the outside polygon edge to be sure that none of the randomly placed
      points were placed extremely close to the edge of the polygon. Then, random points were assigned using a random point
      generator to add one random point to each polygon (Random Point Generator v.1.1, available at www.ESRI.com).
      Polygons that were less than 0.5 hectares in area had the centroid selected as the sampling points. Performing a cross-
      dataset query ensured the centroid of each polygon even in oddly shaped polygons (such as a crescent moon shape). The
      MS Excel file of the UTMs was exported as a text file and formatted as an ArcInfo generate file. The points coverage
      was then created using ArcToolbox generate.
    Process_Date: 2001 to 2002
    Process_Contact:
      Contact_Information:
        Contact_Person_Primary:
          Contact_Person: Kathryn A. Thomas
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        Contact_Position: Project leader
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            North Gemini Drive, Building 4
          City: Flagstaff
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          Postal_Code: 86001
          Country: USA
        Contact_Voice_Telephone: 928-556-7327
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        Contact_Electronic_Mail_Address: Kathryn_A_Thomas@usgs.gov

Hours_of_Service: 8:00am to 5:00pm (Arizona time), Monday through Friday
Contact_Instructions: E-mail

Spatial_Data_Organization_Information:
  Direct_Spatial_Reference_Method: Vector
  Point_and_Vector_Object_Information:
    SDTS_Terms_Description:
      SDTS_Point_and_Vector_Object_Type: Entity point
      Point_and_Vector_Object_Count: 691
    SDTS_Terms_Description:
      SDTS_Point_and_Vector_Object_Type: Point
      Point_and_Vector_Object_Count: 4

Spatial_Reference_Information:
  Horizontal_Coordinate_System_Definition:
    Planar:
      Grid_Coordinate_System:
        Grid_Coordinate_System_Name: Universal Transverse Mercator
        Universal_Transverse_Mercator:
          UTM_Zone_Number: 12
          Transverse_Mercator:
            Scale_Factor_at_Central_Meridian: 0.999600
            Longitude_of_Central_Meridian: -111.000000
            Latitude_of_Projection_Origin: 0.000000
            False_Easting: 500000.000000
            False_Northing: 0.000000
      Planar_Coordinate_Information:
        Planar_Coordinate_Encoding_Method: coordinate pair
        Coordinate_Representation:
          Abscissa_Resolution: 0.000064
          Ordinate_Resolution: 0.000064
        Planar_Distance_Units: meters
    Geodetic_Model:
      Horizontal_Datum_Name: North American Datum of 1983
      Ellipsoid_Name: Geodetic Reference System 80
      Semi-major_Axis: 6378137.000000
      Denominator_of_Flattening_Ratio: 298.257222

Entity_and_Attribute_Information:
  Detailed_Description:
    Entity_Type:
      Entity_Type_Label: wupa_aa.pat
      Entity_Type_Definition: This is a listing of all accuracy assessment point locations within the Wupatki National
        Monument project area
      Entity_Type_Definition_Source: User defined
    Attribute:
      Attribute_Label: FID
      Attribute_Definition: Internal feature number.
      Attribute_Definition_Source: ESRI
      Attribute_Domain_Values:
        Unrepresentable_Domain: Sequential unique whole numbers that are automatically generated.
    Attribute:
      Attribute_Label: Shape
      Attribute_Definition: Feature geometry.
      Attribute_Definition_Source: ESRI
      Attribute_Domain_Values:

   Unrepresentable_Domain: Coordinates defining the features.
 Attribute:
  Attribute_Label: AREA
  Attribute_Definition: Area of feature in internal units squared.
  Attribute_Definition_Source: ESRI
  Attribute_Domain_Values:
   Unrepresentable_Domain: Area is always zero for point coverages. Values are automatically generated.
 Attribute:
  Attribute_Label: PERIMETER
  Attribute_Definition: Perimeter of feature in internal units.
  Attribute_Definition_Source: ESRI
  Attribute_Domain_Values:
   Unrepresentable_Domain: Perimeter is always zero for point coverages. Values are automatically generated.
 Attribute:
  Attribute_Label: WUPA_AA#
  Attribute_Definition: Internal feature number.
  Attribute_Definition_Source: ESRI
  Attribute_Domain_Values:
   Unrepresentable_Domain: Sequential unique whole numbers that are automatically generated.
 Attribute:
  Attribute_Label: WUPA_AA-ID
  Attribute_Definition: User-defined feature number.
  Attribute_Definition_Source: ESRI
  Attribute_Domain_Values:
   Unrepresentable_Domain: Whole numbers that are automatically generated.
 Attribute:
  Attribute_Label: F2
  Attribute_Definition: Accuracy assessment points developed in the sampling design as a unique identifier for each
   polygon sampled.
  Attribute_Definition_Source: User Defined
  Attribute_Domain_Values:
   Unrepresentable_Domain: Textual and numbers.
 Attribute:
  Attribute_Label: X-COORD
  Attribute_Definition: The geographical coordinates for UTM Easting (x-coordinate) collected at each accuracy
   assessment field point in NAD83 Zone12 using Garmin 45XL.
  Attribute_Definition_Source: The Universal Transverse Mercator (UTM) Grid USGS Fact Sheet 077-01 (August 2001)(
   <http://mac.usgs.gov/mac/isb/pubs/factsheets/fs07701.html>)
  Attribute_Domain_Values:
   Range_Domain:
    Range_Domain_Minimum: 449708
    Range_Domain_Maximum: 476951
    Attribute_Units_of_Measure: meters
 Attribute:
  Attribute_Label: Y-COORD
  Attribute_Definition: The geographical coordinates for UTM Northing (y-coordinate) collected at each accuracy
   assessment field point in NAD83 Zone12 using Garmin 45XL.
  Attribute_Definition_Source: The Universal Transverse Mercator (UTM) Grid USGS Fact Sheet 077-01 (August 2001)(
   <http://mac.usgs.gov/mac/isb/pubs/factsheets/fs07701.html>)
  Attribute_Domain_Values:
   Range_Domain:
    Range_Domain_Minimum: 392647
    Range_Domain_Maximum: 394613
    Attribute_Units_of_Measure: meters

Distribution_Information:
 Distributor:
  Contact_Information:
   Contact_Organization_Primary:
    Contact_Organization: USGS-NPS Vegetation Mapping Program Coordinator
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    Address_Type: mailing and physical address
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      Federal Center
    City: Denver
    State_or_Province: Colorado
    Postal_Code: 80225
    Country: USA
   Contact_Voice_Telephone: (303) 202-4220
   Contact_Facsimile_Telephone: (303) 202-4219
   Contact_Electronic_Mail_Address: gs-b-npsveg@usgs.gov
 Resource_Description: Downloadable Data
 Distribution_Liability: Although these data have been processed successfully on a computer system at the USGS-SBSC-
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   Plateau Research Station shall not be held liable for improper or incorrect use of these data described and/or contained
   herein.
 Standard_Order_Process:
  Digital_Form:
   Digital_Transfer_Information:
    Format_Name: HTML
   Digital_Transfer_Option:
    Online_Option:
     Computer_Contact_Information:
      Network_Address:
       Network_Resource_Name: http://biology.usgs.gov/npsveg/wupa/index.html#accuracy_assessment_info
  Fees: None

Metadata_Reference_Information:
 Metadata_Date: 20040211
 Metadata_Review_Date: 20060908
 Metadata_Contact:
  Contact_Information:
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    Contact_Organization: USGS-NPS Vegetation Mapping Program Coordinator
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    State_or_Province: Colorado
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    Country: USA
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   Contact_Facsimile_Telephone: (303) 202-4219
   Contact_Electronic_Mail_Address: gs-b-npsveg@usgs.gov

Metadata_Standard_Name: FGDC-STD-001.1-1999 Content Standard for Digital Geospatial Metadata, 1998 Part 1:
    Biological Data Profile, 1999
Metadata_Standard_Version: FGDC-STD-001-1998
Metadata_Extensions:
  Online_Linkage: http://biology.usgs.gov/fgdc.bio/bionwext.txt
  Profile_Name: Biological Data Profile FGDC-STD-001.1-1999